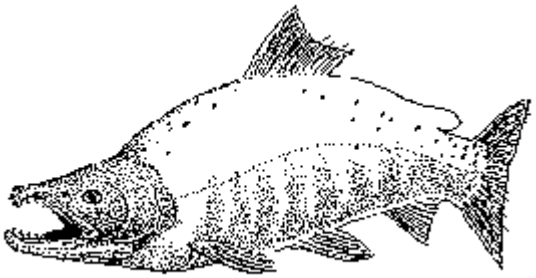
Federal Office of
Subsistence Management
Fishery Information Services
Alaska Region



Guidelines for Writing
FY 2003 Fishery Resource Monitoring Project
Investigation Plans

Introduction

The purpose of these guidelines is to assist potential investigators in preparing Fishery Investigation Plans for projects that address important issues and information needs concerning federal management of subsistence fisheries in Alaska. Fishery Investigation Plans are required for resource monitoring projects that have been selected for further consideration for funding after review of short, two-page, Proposals. The details contained in Fishery Investigations Plans allow Fishery Information Services Division staff and Technical Review Committee members to fully evaluate each study and rank them according to strategic priorities, technical-scientific merit, investigator expertise, and contribution to partnership-capacity building. (See Appendix A for detailed evaluation criteria.) These evaluations result in a Draft Annual Resource Monitoring Plan, to be distributed in August 2002 for review by Regional Advisory Councils and the public, prior to funding decisions by the Federal Subsistence Board in December 2002.

If you need technical assistance developing and writing a Fishery Investigation Plan, contact the Office of Subsistence Management, Fishery Information Services Division at 907-786-3397 or E-mail: richard_cannon@fws.gov

Fishery Investigation Plans should be clear and concise: about ten to fifteen pages in total length (not including references and appendices). Electric copies are mandatory and in Microsoft Word. The preferred font style is Times Roman. Font size should be 12 point. Section headings should be left justified, in bold type, and followed by colons. One electronic copy and one paper copy of each Fishery Investigation Plan must be **submitted by June 21, 2002** to:

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Fishery Information Services Division
Office of Subsistence Management, USFWS
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Format and Guidelines.

Title: Use a short, descriptive title that clearly represents the work that is proposed.

Investigator(s): For each project partner, include name(s), agency or organization, mailing address, phone number, email address, FAX number, and Tax ID No (individuals or organizations with non-profit status).

Cost: FY 2003 $_____ **Project Dates: _____**(begin, end)
FY 2004 $_____
FY 2005 $_____
Total $_____

Geographic Area: List the region or regions where the study will occur (Appendix B map).

Federal Conservation Unit: List the specific National Forest, National Park, National Wildlife Refuge, or Wild and Scenic River that the study addresses.

Information Type: List the primary type of information the study will provide: Traditional Ecological Knowledge (TEK), Subsistence Fishery Harvest Monitoring (HM), or Stock Status and Trends (SST). Only studies concerning both TEK and HM may be contained in a single proposal (TEK-HM.).

Executive Summary (Provide as attachment): Each investigator will provide a concise summary description of their proposed investigation that will be included in the draft 2003 Fisheries Resource Monitoring Plan. Executive summaries should not exceed 1200 words (two pages, size 12 Font). An example of a project executive summary is provided at the end of this document. Investigators should employ the format provided in the example and attach the summary to the full investigation plan.

Issue Addressed: Describe in some detail the reason(s) for gathering this information and its connection to federal management of subsistence fisheries. In this regard, it will be important for the investigator to identify how, where, and when the subsistence fishery takes place within a federal Conservation System Unit (CSU) and that the specie(s) in question is recognized as a federal subsistence resource included under "customary and traditional uses."

In addition, discuss how completion of this project will address specific federal subsistence fisheries management issues or data needs identified by local residents, organizations, Regional Advisory Councils, and the Federal Subsistence Board. The objectives of the proposed investigation must be clearly linked to federal subsistence issues and data needs for fisheries resources produced or supported on CSU lands. Investigators are encouraged to identify any other matching funds that would be used to support proposed investigation activities.

Background: Describe the ecological, cultural, and fishery context for the project. This information should provide the basis for defining key questions or hypotheses addressed by the study. The investigator should provide a review of pertinent information and past literature on

the subject. This review should include information from published literature, agency and organization reports, as well as unpublished information from files, discussions, etc. All sources of published information must be cited in the text (author and year within parentheses) and listed in the References section (see below). All sources of unpublished information are cited in the text only (name, affiliation, personal communication).

Objectives: Numerically list project objectives in the sequence they will be completed. Objectives are clear statements of what the study is supposed to accomplish. (See Appendix C. for additional guidance). Clear objectives are essential to judge the importance, relevance, and cost-effectiveness of the proposed work.

Methods: Describe how each study objective will be met. Clearly link a specific set of procedures to the accomplishment of each objective. This section should contain enough detail to allow a reviewer to understand how the study will be conducted, including how data will be collected and analyzed. A short description of the proposed study site, including a map, must be included in this section. To improve clarity, the Methods section should be divided into subsections that represent different components of the study.

- *Study Design:* For each objective, describe experimental and/or sampling designs. Provide rationale for selected sampling designs. Address sample sizes, sample dates, sampling effort, and methods of sampling. Cite references containing more detail. For example, the Traditional Ecological Handbook (Miraglia, 1998; available from Alaska Department of Fish and Game, Division of Subsistence) is a good source of widely accepted guidelines for designing, conducting, and participating in Traditional Ecological Knowledge studies. (Also see Appendix D. for references to standard fishery sampling techniques and the American Fisheries Society's *Guidelines for Use of Fish in Field Research*, and Appendix E. for additional information about TEK from the World Wide Web).

- *Data Collection and Reduction:* Describe the data collected from each sample, and the protocols for collecting them. Describe the path the data will take after they leave "the field". Include descriptions of data editing, the media used to record data, and the software used to store data.

- *Data Analysis:* Describe the analytical procedures you plan to use. Cite references as appropriate.

Performance Ability: Describe the ability of the investigator, agency, or organization, to successfully perform all work associated with the proposed study. When several individuals, agencies or organizations participate in a study, the role of each participant should be clearly identified, including the lead participant accountable for overall performance. Include a description of any technical-scientific and administrative training and experience in performing similar work. Past reports and professional journal articles written by the investigator(s) and relevant to the proposed study should be listed. Unpublished work relating to the ability of an investigator, agency, or organization to accomplish study objectives should also be described.

Reprints, letters of reference and support, and any additional evidence of performance ability may be included as an appendix.

Potential for Partnership and Capacity Development: Describe the way in which this study will develop partnerships and build the capacity of individuals, agencies, and organizations to meaningfully participate in management of federal subsistence fisheries. Describe specific plans to hire and train local residents for work on the projects. Indicate whether this study would provide opportunities to develop professional capabilities and administrative skills of agencies and organizations that support subsistence users. Summarize how the project will promote increased interaction among subsistence users, tribes, organizations, communities, and agencies in information gathering, data analysis, reporting, and information sharing.

Consultations: Describe all local consultations completed in planning this study, as well as any future consultations envisioned during the course of the study. The purpose of consultation is to ensure that local communities and organizations are aware of, and support, resource monitoring projects. To the greatest practical extent, consultations are also intended to identify opportunities for local communities and organizations to participate in resource monitoring projects. All projects must observe appropriate research ethics. For projects involving interviews with local residents, this includes: informed consent; respect for local tradition, language; protection of privacy, dignity, and confidentiality; acknowledgement of local contributions; and return of results to participating communities. (Also see Appendix F for the National Science Foundation's *Principles for the Conduct of Research in the Arctic*).

Project Budget: Describe all annual costs by federal fiscal year (October 1 – September 30). For each partner requesting funds from the Office of Subsistence Management; provide separate, detailed budgets by FY of direct costs for each state agency, federal agency, and non-agency participant. ***Direct Costs*** are those costs that can be specifically identified with conducting the proposed project, and are part of the budget request to OSM. Direct costs need to be itemized for the proposed project; and generally include labor, travel, rentals, supplies, and equipment. See Appendix G for guidance on preparing a detailed budget. Detailed budgets should be appended to the Investigation Plan.

After constructing the detailed budget(s); provide a budget summary table for each state agency, federal agency, and non-agency participant; as well as a total budget summary table for the entire project. For example if a proposed project contains three investigators, each directly requesting funds from the Office of Subsistence Management, then the IP should contain three separate budget summary tables (one for each investigator), plus a fourth budget summary table for the entire cost of the project being requested of OSM. Please remember that as backup for each budget summary table by investigator, there is an appended detailed budget by FY. Each budget summary table should be constructed as follows:

FY2003 Budget Summary Table
FIS 03-_ _ _: Project Title
Investigating Agency

Category	FY2003	FY2004	FY2005
Direct Costs:			
Personnel			
Travel			
Contractual			
Materials and Supplies			
Equipment			
Total Direct Costs (a)			
Indirect Costs:			
Percent of Direct Costs			
Total Indirect Costs (b)			
Project Total (a + b)			
**********			
Selected Summaries:			
Local Hire			
Agency Match			

- ***Direct Costs*** were explained previously, are itemized in the Detailed Budget(s) appended to the IP, and are those costs that can be specifically identified with conducting the proposed project, and are part of the budget request to OSM. Direct costs can be readily itemized for the proposed project; and generally include labor, travel, rentals, supplies, and equipment.

- ***Indirect Costs*** are in addition to the direct costs, and are part of the budget request to OSM. Indirect costs cannot be specifically identified with conducting the proposed project, but would be incurred by the investigating agency as a result of implementing the proposed project. Indirect costs are difficult to itemize directly to the proposed project; and generally include space rental, utilities, postage, unemployment compensation, data processing, training, safety management, affirmative action programs, administrative support, and supervisory oversight. Since Indirect Costs cannot be itemized, they are computed as a percentage of the Total Direct Costs. The percent indirect rate should be stated, as well as the actual request for Indirect Costs.

- ***Project Total*** is the sum of the Direct and Indirect Costs, and is the total budget request to the Office of Subsistence Management.

Selected Summaries are also needed to properly evaluate the proposed project and include:

- ***Local Hire*** is defined as personnel costs for federally qualified subsistence users. Local hire is included in the Direct Costs, and can be personnel for which there is a preference for rural or native residents; or sub-contracts with rural or native organizations that provide personnel.

- ***Agency Match*** is defined as additional direct costs to conduct the proposed study. These other funds are in addition to the Project Total, and come from a source other than the Office of Subsistence Management (i.e. Agency Match is **not** part of the request to OSM). The source of this Agency Match, and the purpose to which these funds are put, must be described. As additional direct costs to conduct the proposed study, these funds can be readily identified and itemized.

In addition to the above budget computations by federal fiscal year, describe any ***in-kind contributions*** appropriate to the proposed project. These are donated services on the part of the investigating agency, and not included in any of the above budget computations. Examples include equipment, office space, support staff, etc.

Schedule: Estimate the beginning and completion dates for critical segments of the study, including all deliverables, and provide this information in tabular form.

Example Fish Creek Counting Tower Project Schedule.

Task	Jan-Feb	Mar-Apr	May-Jun	Jul-Aug	Sep-Oct	Nov-Dec
Start up			May 1-10 2001			
Sampling			May 11 2001	July 22 2001		
Data Entry				July 2-Aug 5 2001		
Analysis					Aug 6 2001	Dec 30 2001
Report Writing	Jan 1 2003	April 15 2003				
Final Report			May 1 2003			

Project Deliverables/Products: Describe the products to be provided at the conclusion of the study. Requirements for most studies include two concise project performance reports; one in September and one in December of each year. For multi-year studies, an Annual Progress Report (paper and electronic format) is needed each year that describes results and accomplishments for the past year as well as any proposed changes in design or methods. For one-year studies, as well as the last year of multi-year studies, a Final Project Report is needed that describes fulfillment of objectives and includes, an abstract, introduction, methods, results and discussion. Copies of the Final Project Report (in electronic form, with two camera ready paper copies, and 30 bound copies), will be provided to the Office of Subsistence Management, Fisheries Information Services Division. Three of the bound copies of the final report will be

provided to the Alaska Resources Library Information System (ARLIS). Depending upon the specific study, deliverables may also include such products as electronic databases, graphics, or meetings. Specific details about format, acknowledgements, and binding of final reports will be addressed during development of the funding contract or assistance agreements for the project.

Key Word Referencing: Provide a list of words to characterize your project for information management purposes. These words should include such items as the subsistence management region, drainage or water body, fish species, fish stock, life stage, study method, and information type (Traditional Ecological Knowledge, Harvest Monitoring, Stock Status and Trends)

References: Provide complete citations for published literature referenced in the above sections.

For example:

Beacham, T.D. 1982. Fecundity of coho salmon (*Onchorhynchus kisutch*) and chum salmon (*O. keta*) in the northeast Pacific Ocean. Canadian Journal of Zoology 60: 1463-1469.

Coffing, M.C. 1991. Kwethluk subsistence: Contemporary land use patterns, wild resource harvest and use, and the subsistence economy of a lower Kuskokwim River area community. Division of Subsistence, Alaska Department of Fish and Game, Juneau, Technical Paper No. 157.

Executive Summary
Example

FIS 02-026: East Fork Andreafski River Weir Operations
Investigators: Bering Sea Fisherman's Association

Geographic Area: Yukon River **Information Type:** Stock and Status Trends

Issue:
Investigators will collect data on all components (early, middle, and late) of the escapement of salmon to the Andreafski River in order to help fishery managers avoid over harvest of any single component.

Objectives:
1) Count chinook, coho, and chum salmon escapement in the Andreafski River.
2) Estimate chinook, coho, and chum salmon age-sex-length (ASL).
3) Estimate migration timing of chinook, coho, and chum salmon from commercial fishery to the weir site.
4) Record weather and water conditions.

Methods:
Investigators will install a resistance board weir across the East Fork Andreafski River 26.7 miles upstream from the Yukon River. The weir will direct upstream migrating adult salmon through passage areas where fish will be counted. A live trap and passing chute installed near mid-channel will allow fish to pass through and sampling to be done during low water periods. Investigators will count fish (by species) as they pass through the live traps. Investigators will also record water temperatures, water levels, and weather conditions (wind speed and direction, cloud cover, and precipitation). Fish sampling will include measuring length, determining sex, collecting scales, examining fish for gill net marks, and then releasing the fish up-stream from the weir. Local technicians will be hired by the Yupiit of Andreafski (YofA) and the Algaaciq Tribal Council (ATC) and will be trained by the Alaska Dept. of Fish & Game to observe and count chinook, chum, and coho salmon. Enhancing local knowledge of the methods and techniques used to manage fish stocks is a benefit in the continuation of this project.

Products:
The Bering Sea Fisherman's Association (BSFA), in collaboration with state and federal agencies, will prepare a yearly written report that will include all data collected, a description of that data, and a summary of the entire project. The ATC and YofA will summarize the technicians' findings. The final report will be delivered to the Office of Subsistence Management, Fisheries Information Services Division.

Experience of Investigators:
The BSFA is directed by a 13-member board made up of local fishermen from Bristol Bay, the Yukon/Kuskokwim delta region, Norton Sound, Kotzebue, and St. Paul. The BSFA monitors current issues on behalf of village fishermen and directs scientific research. Since 1994, BSFA

has been receiving congressional funds to research and help restore the depressed salmon stocks in Western Alaska. Karen Gillis, Grant Management Specialist for the BSFA will manage this project. Ms. Gillis has worked with the Western Alaska Salmon Research and Restoration programs for seven years, assisting with the management of over 32 projects each year. Mr. Jude Henzler, Executive Director of the BSFA, will provide oversight on this project. Mr. Henzler has a long history within the arena of Bering Sea issues and politics, since his employment with BSFA in 1987. Mr. Henzler has been a successful facilitator between agencies, councils, and other organizations.

Partnerships/Collaboration:
BSFA has administered the YofA and ATC portions of this project since 1995, working in close cooperation with the YofA, ATC, and U.S. Fish and Wildlife Service staff to assure both project cohesiveness and that the data is of a level acceptable for management use. This project encourages local involvement in the management and rebuilding of their salmon stocks and it promotes local hire.

Budget:

Total Project Costs:

	State	Federal	Non-Agency	Total
FY2003				
FY2004				
FY2005				

Local Hire Costs (these costs included in Total Project Costs, above):

	State	Federal	Non-Agency	Total
FY2003				
FY2004				
FY2005				